

## ABSTRACT

A working label switched path (LSP) between neighbor label switched routers (LSRs) in a ring network that utilizes label switching is protected by an LSP that connects the neighbor LSRs of the working LSP in an opposite direction to the working LSP. If the working LSP fails, then packets are switched to the protection LSP. Switched packets traverse the protection LSP until they reach the neighbor LSR that they would have reached had the packets traversed the working LSP. Time-to-live (TTL) values of packets that traverse the protection LSP are adjusted to account for the number of hops on the protection LSP so that the TTL values of the packets are the same after traversing the protection LSP as they would have been had they traversed the working LSP. After traversing the protection LSP packets can be switched back to the working LSP or switched to a next hop LSP.